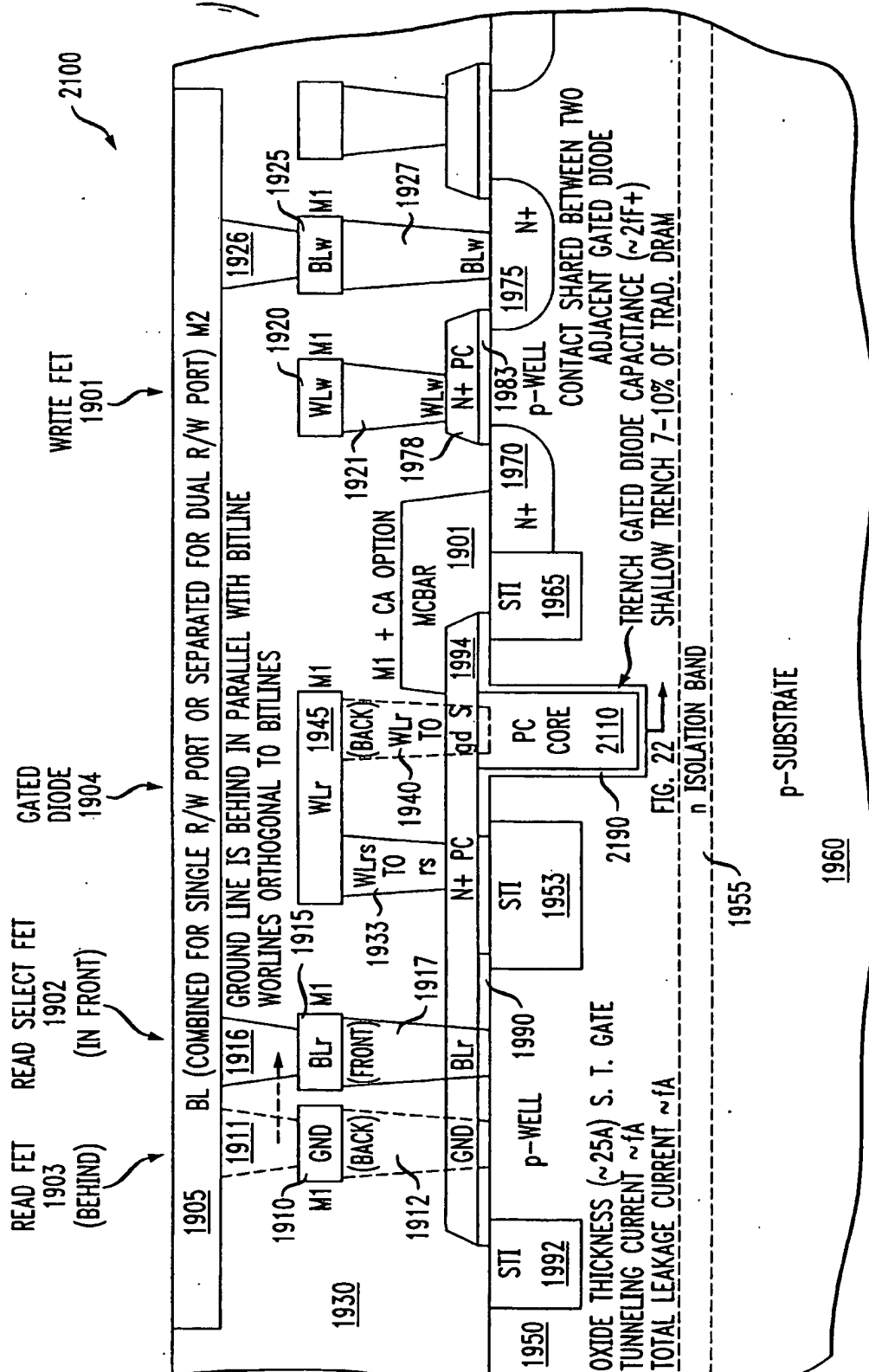


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FIG. 21



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FIG. 25

The diagram illustrates a 3T1D memory array architecture. It features a grid of wordlines (WL) and bitlines (BL). Wordline drivers are connected to the wordlines, and the array consists of 3T1D memory cells. A key feature is the shared ground connection, labeled "GND SHARED BY n BITS (e.g. EVERY 8-16 BLr)", which is connected to the wordlines. The array is organized into columns, with labels for wordlines (e.g., WLw 0, WLw i, WLw N-1) and bitlines (e.g., BLw 0, BLw i, BLw N-1). The output of the array is connected to a series of inverters (labeled 2360-1, 2360-2, ..., 2360-M) which drive the bitlines (Din, Dout, SA). The diagram also shows various control signals and connections, including 2330-1, 2340-1, 2350-1, 2360-1, 2370-1, 2380-1, 2390-1, 2400-1, 2410-1, 2420-1, 2430-1, 2440-1, 2450-1, 2460-1, 2470-1, 2480-1, 2490-1, 2500-1, 2510-1, 2520-1, 2530-1, 2540-1, 2550-1, 2560-1, 2570-1, 2580-1, 2590-1, 2600-1, 2610-1, 2620-1, 2630-1, 2640-1, 2650-1, 2660-1, 2670-1, 2680-1, 2690-1, 2700-1, 2710-1, 2720-1, 2730-1, 2740-1, 2750-1, 2760-1, 2770-1, 2780-1, 2790-1, 2800-1, 2810-1, 2820-1, 2830-1, 2840-1, 2850-1, 2860-1, 2870-1, 2880-1, 2890-1, 2900-1, 2910-1, 2920-1, 2930-1, 2940-1, 2950-1, 2960-1, 2970-1, 2980-1, 2990-1, 3000-1, 3010-1, 3020-1, 3030-1, 3040-1, 3050-1, 3060-1, 3070-1, 3080-1, 3090-1, 3100-1, 3110-1, 3120-1, 3130-1, 3140-1, 3150-1, 3160-1, 3170-1, 3180-1, 3190-1, 3200-1, 3210-1, 3220-1, 3230-1, 3240-1, 3250-1, 3260-1, 3270-1, 3280-1, 3290-1, 3300-1, 3310-1, 3320-1, 3330-1, 3340-1, 3350-1, 3360-1, 3370-1, 3380-1, 3390-1, 3400-1, 3410-1, 3420-1, 3430-1, 3440-1, 3450-1, 3460-1, 3470-1, 3480-1, 3490-1, 3500-1, 3510-1, 3520-1, 3530-1, 3540-1, 3550-1, 3560-1, 3570-1, 3580-1, 3590-1, 3600-1, 3610-1, 3620-1, 3630-1, 3640-1, 3650-1, 3660-1, 3670-1, 3680-1, 3690-1, 3700-1, 3710-1, 3720-1, 3730-1, 3740-1, 3750-1, 3760-1, 3770-1, 3780-1, 3790-1, 3800-1, 3810-1, 3820-1, 3830-1, 3840-1, 3850-1, 3860-1, 3870-1, 3880-1, 3890-1, 3900-1, 3910-1, 3920-1, 3930-1, 3940-1, 3950-1, 3960-1, 3970-1, 3980-1, 3990-1, 4000-1, 4010-1, 4020-1, 4030-1, 4040-1, 4050-1, 4060-1, 4070-1, 4080-1, 4090-1, 4100-1, 4110-1, 4120-1, 4130-1, 4140-1, 4150-1, 4160-1, 4170-1, 4180-1, 4190-1, 4200-1, 4210-1, 4220-1, 4230-1, 4240-1, 4250-1, 4260-1, 4270-1, 4280-1, 4290-1, 4300-1, 4310-1, 4320-1, 4330-1, 4340-1, 4350-1, 4360-1, 4370-1, 4380-1, 4390-1, 4400-1, 4410-1, 4420-1, 4430-1, 4440-1, 4450-1, 4460-1, 4470-1, 4480-1, 4490-1, 4500-1, 4510-1, 4520-1, 4530-1, 4540-1, 4550-1, 4560-1, 4570-1, 4580-1, 4590-1, 4600-1, 4610-1, 4620-1, 4630-1, 4640-1, 4650-1, 4660-1, 4670-1, 4680-1, 4690-1, 4700-1, 4710-1, 4720-1, 4730-1, 4740-1, 4750-1, 4760-1, 4770-1, 4780-1, 4790-1, 4800-1, 4810-1, 4820-1, 4830-1, 4840-1, 4850-1, 4860-1, 4870-1, 4880-1, 4890-1, 4900-1, 4910-1, 4920-1, 4930-1, 4940-1, 4950-1, 4960-1, 4970-1, 4980-1, 4990-1, 5000-1, 5010-1, 5020-1, 5030-1, 5040-1, 5050-1, 5060-1, 5070-1, 5080-1, 5090-1, 5100-1, 5110-1, 5120-1, 5130-1, 5140-1, 5150-1, 5160-1, 5170-1, 5180-1, 5190-1, 5200-1, 5210-1, 5220-1, 5230-1, 5240-1, 5250-1, 5260-1, 5270-1, 5280-1, 5290-1, 5300-1, 5310-1, 5320-1, 5330-1, 5340-1, 5350-1, 5360-1, 5370-1, 5380-1, 5390-1, 5400-1, 5410-1, 5420-1, 5430-1, 5440-1, 5450-1, 5460-1, 5470-1, 5480-1, 5490-1, 5500-1, 5510-1, 5520-1, 5530-1, 5540-1, 5550-1, 5560-1, 5570-1, 5580-1, 5590-1, 5600-1, 5610-1, 5620-1, 5630-1, 5640-1, 5650-1, 5660-1, 5670-1, 5680-1, 5690-1, 5700-1, 5710-1, 5720-1, 5730-1, 5740-1, 5750-1, 5760-1, 5770-1, 5780-1, 5790-1, 5800-1, 5810-1, 5820-1, 5830-1, 5840-1, 5850-1, 5860-1, 5870-1, 5880-1, 5890-1, 5900-1, 5910-1, 5920-1, 5930-1, 5940-1, 5950-1, 5960-1, 5970-1, 5980-1, 5990-1, 6000-1, 6010-1, 6020-1, 6030-1, 6040-1, 6050-1, 6060-1, 6070-1, 6080-1, 6090-1, 6100-1, 6110-1, 6120-1, 6130-1, 6140-1, 6150-1, 6160-1, 6170-1, 6180-1, 6190-1, 6200-1, 6210-1, 6220-1, 6230-1, 6240-1, 6250-1, 6260-1, 6270-1, 6280-1, 6290-1, 6300-1, 6310-1, 6320-1, 6330-1, 6340-1, 6350-1, 6360-1, 6370-1, 6380-1, 6390-1, 6400-1, 6410-1, 6420-1, 6430-1, 6440-1, 6450-1, 6460-1, 6470-1, 6480-1, 6490-1, 6500-1, 6510-1, 6520-1, 6530-1, 6540-1, 6550-1, 6560-1, 6570-1, 6580-1, 6590-1, 6600-1, 6610-1, 6620-1, 6630-1, 6640-1, 6650-1, 6660-1, 6670-1, 6680-1, 6690-1, 6700-1, 6710-1, 6720-1, 6730-1, 6740-1, 6750-1, 6760-1, 6770-1, 6780-1, 6790-1, 6800-1, 6810-1, 6820-1, 6830-1, 6840-1, 6850-1, 6860-1, 6870-1, 6880-1, 6890-1, 6900-1, 6910-1, 6920-1, 6930-1, 6940-1, 6950-1, 6960-1, 6970-1, 6980-1, 6990-1, 7000-1, 7010-1, 7020-1, 7030-1, 7040-1, 7050-1, 7060-1, 7070-1, 7080-1, 7090-1, 7100-1, 7110-1, 7120-1, 7130-1

